

Amendments to the Claims

- 1.-4. (canceled)
5. (currently amended) An improved optical wheel comprising a circular disc having a plurality of windows arranged adjacent a periphery of the disc, the improvement comprising each of the plurality of windows being characterized by a substantially hourglass shape such that a variation in width of each window corresponds to a light intensity distribution of an associated light source.
6. (currently amended) The optical wheel of claim 5, each window comprising a first pair of opposed sides disposed so that both ends of the first pair of opposed sides are spaced farther apart than centers of the first pair of opposed sides.
7. (original) The optical wheel of claim 5, wherein the first pair of opposed sides of the window describe hyperbolic curves.
8. (original) The optical wheel of claim 5, wherein each of the plurality of windows is transparent to light of a defined wavelength.
9. (original) he optical wheel of claim 5, wherein each of the plurality of windows is elongated to define a long axis, said long axis being substantially congruent with a radius of the disc.
10. (currently amended) An optical device, comprising:
 - a light source having a non-uniform intensity versus angular deviation from an axis;
 - a detector;
 - a light path defined between the light source and the detector;
 - a stroboscopic element; and

a plurality of substantially hourglass-shaped windows arranged on the stroboscopic element and operative to be interposed in the light path;

wherein each hourglass-shaped window is shaped such that a variation in width of the window corresponds to a light intensity distribution of the light source.

11. (previously presented) The optical device of claim 10, each window comprising a first pair of opposed sides disposed so that the ends of the first pair of opposed sides are spaced farther apart than the centers of the first pair of opposed sides.

12. (original) The optical device of claim 10, wherein the first pair of opposed sides describe hyperbolic curves.

13. (original) The optical wheel of claim 10, wherein each of the plurality of windows is transparent to light of a defined wavelength.

14. (original) The optical device of claim 10, wherein each window is elongated to define a long axis, said long axis being substantially congruent with a radius of the wheel.

15. (original) An optical wheel, comprising:

a circular disc having a periphery;

a plurality of windows arranged adjacent the periphery of the disc, each of the plurality of windows comprising:

a top and a base defining a height; and

a first side and a second side defining a width;

wherein each of the plurality of windows is characterized by a substantially hourglass shape.

16. (previously presented) The optical wheel of claim 15, wherein the first side and the second side are disposed so that ends of the first side and the second side are spaced farther apart than centers of the first side and the second side.

17. (original) The optical wheel of claim 16, wherein the first side and the second side of the window describe hyperbolic curves.

18. (original) The optical wheel of claim 17, wherein each of the plurality of windows is transparent to light of a defined wavelength.

19. (original) The optical wheel of claim 15, wherein each of the plurality of windows is elongated to define a long axis, said long axis being substantially congruent with a radius of the disc.

20. (previously presented) An optical device, comprising:

a light source configured to emit light;

a light path defined by an axis intersecting the light source along which an intensity of the light is substantially a maximum;

a detector disposed in the light path; and

an optical element between the light source and the detector, the optical element including:

a plurality of optical windows, each optical window having:

a first side;

a second side disposed opposite the first side, the first and second sides shaped such that points on the first side and points on the second side are disposed at varying distances;

a minimum distance line defined by a point on the first side and a point on the second side having a substantially minimum distance between each other; and

a third side coupling an end of the first side to an end of the second side;

wherein, when the light path intersects one of the optical windows, the minimum distance line of the optical window substantially intersects the light path.

21. (currently amended) The optical device of claim 20, wherein:

an intensity of the light source varies according to angular deviation from the axis;

the first and second sides of each optical window are shaped such that a distance between the first and second sides varies inversely to angular deviation from the axis along a centerline of the optical window[.]; when the light path intersects the centerline of the optical window, an intensity of the light passing through a line between the first and second sides that is substantially perpendicular to a centerline of the optical window is substantially equal to intensities of light passing through other lines between the first and second sides that are substantially perpendicular to the centerline of the optical window; and

the centerline of the each optical window is disposed between the first side and the second side of the optical window.

22. (cancelled)

23. (previously presented) The optical device of claim 20, wherein:

the first and second sides of each optical window are shaped such that when the optical element moves relative to the light path, a light intensity measured at the detector versus a position of the optical element has a shape substantially between a sinusoid and a square wave.

24. (new) The optical device of claim 10, wherein:

each hourglass-shaped window is shaped such that the variation in width of the window varies inversely to the light intensity distribution of the light source.